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GOOD DRINKS MADE OF MILK



KICKLESS; BUT FULL OF PUNCH

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GOOD DRINKS MADE OF MILK

Let's make some good milk drinks!

Let's make them so good we won't have to worry about selling them; so good they'll sell themselves.

Milk drinks, made right, are unquestionably good. *Healthful Nourishing Delicious* And they'll spread like neighborhood gossip over back-yard fences.

Here's how to make some delicious milk drinks—as milk specialists of the United States Department of Agriculture make them.

BUTTERMILK

IN making buttermilk from milk the same procedure should be followed as in making a starter for cream ripening. A good, clean-flavored mother starter should be carried along with every possible precaution to prevent contamination. Good commercial cultures can be obtained, but if it is not convenient to use one of

these a natural starter should be secured. For this purpose the following procedure may be followed:

How to Make It From Milk

Select milk from several sources; put about 1 pint from each source into clean glass jars or bottles and allow them to stand in a warm place until the milk is curdled. When this occurs put about 1 pint of milk into each of an equal number of bottles and hold in steam or boiling water for one-half hour. When these bottles of milk are cooled, transfer about 1 teaspoonful of milk from each of the bottles of sour milk obtained in the first operation to one of the bottles of heated and cooled milk. Allow these samples to curdle and repeat the process until one sample is obtained which curdles in at least 8 or 10 hours with a smooth curd free from whey and gas bubbles and with a pleasant, acid taste.

Gas bubbles, or the separation from the curd of a milky or straw-colored whey, show that the lactic-acid bacteria are still mixed with other kinds. Considerable variation in flavor can be found in different cultures, and care should be exercised to select one that gives a clean, sharp taste.

Propagate this culture in the same way from day to day. The amount of this mother starter which should be carried will depend upon the amount of buttermilk

to be made. One quart should be enough for 20 to 30 gallons.

Add the mother starter to the milk to be used for buttermilk, or pasteurize the milk in a continuous pasteurizer at 180 to 185° F. (82 to 85° C.), or preferably hold the milk in water-jacketed vats or cans at 180° F. (82° C.) for 30 minutes to an hour; cool to about 70° F. (21.1° C.) and add the mother starter. The most desirable temperature for this fermentation is 70 to 75° F. (21.1 to 24° C.).

When this milk has curdled, cool it at once to about 50° F. and churn thoroughly to break the curd into fine particles.

Buttermilk may be improved especially as to its texture and tendency to whey off, by the addition of about 10 per cent of a milk culture of Bacillus Bulgaricus.

YOGURT OR BULGARIAN BUTTERMILK

Start with Pasteurized Milk

PROPAGATE a small culture of the Bacillus Bulgaricus from day to day as indicated for the lactic culture for buttermilk. This culture may be obtained from various commercial laboratories. To prevent contamination by yeasts or gas-forming bacteria,

it is necessary to carry this culture at a temperature of about 110° F. A small egg incubator may be used for this purpose.

The Second Operation

Carry in a similar way a culture of the ordinary sour-milk organism, which may be obtained from many of the commercial laboratories.

Thoroughly pasteurize the milk to be fermented. If a small quantity—5 to 10 gallons, for instance—is to be made, it may be done by holding a can of milk in a tub or vat of water heated by a steam hose. If a larger quantity is made, one of the starter cans used in creameries will be found convenient. These are essentially cylindrical vats with mechanical stirrers and a jacket which can be filled with steam for heating or water for cooling. The milk should be held at a temperature of at least 180° F. for not less than 30 minutes.

Cool the milk to about 100° F. Draw off one-half and inoculate it with the culture obtained in the second operation. Inoculate the remaining half with Bulgaricus culture obtained in the first operation. The amount to be added will depend on the quantity of milk to be fermented, the time at which it is desired to have it curdled, and the temperature maintained during the fermentation. This can best be determined by experience. One pint should be sufficient for any amount between 10 and 20 gallons.

The milk inoculated with the product of the second operation may be held at ordinary room temperature. Precautions must be taken to hold that part inoculated with the Bulgaricus culture at a temperature of 90 to 100° F. for several hours. If the milk is in cans it may be set in a tub of warm water. A large volume of milk in a warm room will maintain the proper temperature.

If one is unable to hold the milk at the desired temperature, the amount of culture inoculation should be increased.

When the milk has curdled—which should be in 10 or 12 hours—mix the two lots thoroughly by churning or stirring together, bottle, and put on ice to check the acid formation.

BUTTERMILK LEMONADE

It's Good for the Nation

A REFRESHING and nutritious drink may be made by the addition of lemon juice and sugar to buttermilk, following the same procedure as in making ordinary lemonade. It will usually be found necessary to use more sugar and more lemon juice than in making lemonade with water. Buttermilk lemonade should be served very cold.

KEFIR OR KOUMISS

USE buttermilk or freshly curdled sour milk. This should be thoroughly agitated to break the curd into fine particles. Buttermilk containing Bacillus Bulgaricus will give a flavor too acid for most tastes.

Add 1 per cent cane sugar (1½ oz. to the gallon). Add a small amount of yeast cake—one-fourth of a cake will be sufficient for 1 gallon of buttermilk. The yeast cake should be ground up in water so that it will be well distributed.

The "Drought-Resistant" Drink

Bottle this preparation, leaving sufficient space to permit a thorough shaking of the contents. Strong round bottles of the type used for carbonated drinks should be used, as considerable pressure is developed by the fermentation. If the bottle is not provided with a sealing device the corks must be securely tied or wired in place.

Hold for 4 or 5 days at a temperature of 65 to 70° F., shaking every day to keep the curd well broken up. At the end of this time there should be considerable gas but not enough to blow the milk out of the bottle. It should have a pleasant acid taste with a slight bitterness. The fresh milk sometimes has a yeasty taste but this gradually disappears. If the milk is kept on ice it will remain in good condition for two weeks or more.

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